

2022 APEGA Innovation in Education Awards

- This is the third year the APEGA Innovation in Education Awards have been awarded. The awards celebrate exceptional teachers and help them implement larger STEM initiatives in their classrooms. Projects generally take students six months or longer to complete, including investigation, prototype design and revisions, and final presentations to stakeholders.
- For the 2021/2022 award cycle, APEGA awarded \$23,600 for five exciting projects, each receiving up to \$5,000. Projects will be carried out by five schools across Alberta, reaching over 300 students in grades 4 to 12.
- Recipient teachers will use the funds to incorporate meaningful, hands-on, and student-led educational experiences into their classrooms.
- APEGA's K-12 Outreach Program strives to increase awareness and excitement for engineering and geoscience topics and associated careers. Each award-winning project includes activities that focus on real-life engineering or geoscience applications that could positively affect the students' communities. Through this hands-on engagement, students gain a deeper understanding of STEM topics and develop skills that empower them to pursue their interests. By exposing students to real-life STEM applications and the positive effects STEM careers have on the world, we hope to increase interest and diversity within these fields.
- APEGA members will be mentoring students and acting as subject matter experts.

For more information, please contact:

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Airdrie

- Teacher: Christine Crane
- School: Oilfields High School
- Project: Our Water Our Future
- Contact: cranec@fsd38.ab.ca

Project information

Students from Oilfields Junior Senior High School, in collaboration with students from Chief Jacob Bears paw School, are investigating the water quality of Highwood River to learn and share with others the importance of environmental sustainability and the collective responsibility we have to the land and water.

Calgary

- Teacher: Lauren Elliott
- Schools: The Career and Technology Centre
- Project: The WE CAN! Sea Can
- Contact: laelliott@cbe.ab.ca

Project information

Students from the Career and Technology Centre are collaborating to create a self-sustaining indoor community garden inside of a used shipping container. This will be used as a community space with the idea that future prototypes will be developed for northern communities to promote low carbon food production and increase food security by extending the growing season.

Fort McMurray

- Teacher: Fahmo Rage
- School: McNally High School
- Project: AirMax Project
- Contact: fahmo.rage@fmprsd.ab.ca

Project information: Junior High students from Fort McMurray Islamic School are finding ways to promote sustainable food production and alternative energy sources. Using a biogas tank, solar energy and experimenting with energy storage technologies these students will be developing renewable energy systems that can help power and sustain homes and schools.

Strathmore

- Teacher: Cole Hintz
- School: Strathmore High School
- Project: Strathmore High School Community Greenhouse
- Contact: cole.hintz@ghsd75.ca

Project information:

Students from Strathmore High School are working together to plan and construct a greenhouse with a geothermal heat source. This will allow the greenhouse to operate year-round and create a space accessible to community members that encourages sustainable food production, sustainable energy practices, and science education.



The Association of Professional
Engineers and Geoscientists of Alberta

FACT SHEET

Strathmore

- Teacher: Jill McDonald
- School: George Freeman School
- Project: Taking Action to Diversify our Electricity Production: Wind Power
- Contact: jill.mcdonald@ghsd75.ca

Project information:

Elementary and Junior High students from George Freeman School are investigating and comparing the effectiveness of wind power and solar energy as sources of electricity. By installing and monitoring a wind turbine they will enlighten themselves and others about renewable energy sources whilst lighting up a community storage shed.